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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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of

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Complete If Known

Application Number	10/072,728
Filing Date	February 7, 2002
First Named Inventor	Chester L. Schuler
Art Unit	2675
Examiner Name	Ming-Hun Liu

Attorney Docket Number

IMMR092/02US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
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		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
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		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
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		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
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		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992

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Sheet	3	of	3	Filing Date	February 7, 2002
				First Named Inventor	Chester L. Schuler
				Art Unit	2675
				Examiner Name	Ming-Hun Liu
				Attorney Docket Number	IMMR092/02US

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		NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.	
		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.	

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Sheet **5** of **11**

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Examiner Name	Ming Hun Liu
Attorney Docket Number	IMMR092/02US

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		Country Code ³	Number ⁴	Kind Code ⁵ (If Known)		
		DE	4 400 790	A1	05-18-1995	
		EP	0 349 086		03-01-1990	
		EP	0 111 992		09-1983	
		EP	0085518	A1	08-10-1983	
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		WO	9721160		06-12-1997	
		WO	92/00559		01-09-1992	

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		SCANNELL, "Taking a Joystick Ride," Computer Currents, Boston Edition, Vol. 9, No. 11, November 1994.
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).
		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
		IBM Technical Disclosure Bulletin, Vol. 38, No. 8, 1995, pp. 625-626.
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		RUSSO, "The Design and Implementation of a Three Degree of Freedom Force Output Joystick," MIT Libraries Archives 08/14/1990, pp. 1-131, (May 1990)
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		BEJCZY et al., "Controlling Remote Manipulators Through Kinesthetic Coupling," Computers in Mechanical Engineering NT Control No. MPO-17851; JPL Case No. 5348 Attachment, pp. 48-61, (July 1983)
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(use as many sheets as necessary)				Filing Date	February 7, 2002
Sheet	7	of	11	First Named Inventor	Chester L. Schuler
				Art Unit	2675
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				Attorney Docket Number	IMMR092/02US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
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		WRIGHT, "A Manufacturing Hand," ISSN 0736-5845/85 (704), pp. 13-23, (1985)
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		Gotow, J.K., et al., "Perception of Mechanical Properties at the Man-Machine Interface," IEEE 1987, pp.688-689.
		Adelstein Bernard D. et al., "A High Performance Two Degree-of-Freedom Kinesthetic Interface," Massachusetts Institute of Technology, pp. 108-112.
		Kotoku, T. et al., "Environment Modeling for the Interactive Display (EMID) used in Telerobotic Systems", IROS, Nov. 1991, pp. 999-1004.

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Sheet	8	of	11	Filing Date	February 7, 2002
				First Named Inventor	Chester L. Schuler
				Art Unit	2675
				Examiner Name	Ming Hun Liu
				Attorney Docket Number	IMMR092/02US

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		Hendon, J. N. "The State of the Art Model M-2 Maintenance System", Proceedings of the 1984 National Topical Meeting on Robotics and Remote Handling in Hostile Environments, American Nuclear Society, pp. 59-66.
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		Rosenberg, L., "Virtual Haptic Overlays Enhance Performance in Telepresence Tasks", SPIE 1994.

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		Howe, R. et al., "Task Performance with a Dextrous Teleoperated Hand System," Proceedings of SPIE, Vol. 1833, Nov. 1992.
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		Iwata, H., "Artificial Reality with Force-feedback: Development of Desktop Virtual Space with Compact Master Manipulator," Computer Graphics, Vol. 24, No. 4, 1990, pp. 165-170.
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Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Giel et al., "Digital Control Loading", Summary, Paper 1, Paper 2; Paper 3, International Air Transport Association, Seventh Flight Simulator Technical Sub-Committee Meeting, Item number 10, Montreal, Sept. 17-20, 1984.
		Seidensticker, Steve, "Application of Microcomputers to the Simulator 'Linkage' Problem," National Security Industrial Association 4th Interservice/Industry Training Equipment Conference Proceedings, Nov. 16- 18, 1982.
		Rolfe, J.M. and Staples, K. J., Flight Simulation, eds., 1986.
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		Schmult, Brian et al., "Application Areas for a Force-Feedback Joystick," ASME 1993, DSCVol. 49, pp. 47-54.
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		Millman, P. et al., "Design of a Four Degree-of-Freedom Force-Reflecting Manipulandum with a Specified Force/Torque Workspace," IEEE CH2969-4, 1991, pp. 1488-1492.
		Kilpatrick, P., "The Use of a Kinesthetic Supplement in an Interactive Graphics System," Univ. of N. Carolina, 1976, pp. 1-175.
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		Winey III, C., "Computer Simulated Visual and Tactile Feedback as an Aid to Manipulator and Vehicle Control," Mass. Institute of Tech., Mech. Engineering, 1981, pp. 1-79.
		Hasser, C. et al., "Tactile Feedback with Adaptive Controller for a Force-Reflecting Haptic Display," Parts 1&2. IEEE 0-7803-3131-1, 1996, pp. 526-533.

Examiner Signature	Date Considered
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